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Conidial fungi from the semiarid Caatinga biome of Brazil: a new species of *Selenosporella* from submerged leaves

Patrícia Oliveira Fiuza[1], Luís Fernando Pascholati Gusmão[1]*, & Rafael F. Castañeda-Ruiz [2]

[1]*Departamento de Ciências Biológicas, Laboratório de Micologia, Universidade Estadual de Feira de Santana, Avenida Transnordestina s/n, Novo Horizonte, 44036-900, Feira de Santana, Brazil*

[2]*Instituto de Investigaciones Fundamentales en Agricultura Tropical 'Alejandro de Humboldt' (INIFAT), Académico Titular de la Academia de Ciencias de Cuba, Calle 1 Esq. 2, Santiago de Las Vegas, C. Habana, Cuba, C.P. 17200*

* Correspondence to: *lgusmao@uefs.br*

Abstract — *Selenosporella minima* sp. nov., collected on submerged leaves of *Calophyllum brasiliense* in the Brazilian semiarid region, is described and illustrated. It is distinguished by verticillate branched conidiophores and navicular to acerose conidia.

Key words — asexual fungi, taxonomy, freshwater

Introduction

Selenosporella G. Arnaud ex MacGarvie comprises twelve species. Descriptions, illustrations, and a key to *Selenosporella* species has been provided by Castañeda-Ruiz et al. (2009), who divided the genus into two groups: i) with conidiogenous cells discrete and arranged in verticils and ii) with conidiogenous cells integrated and not arranged in verticils.

Most *Selenosporella* species have been described from litter or wood (Seifert et al. 2011), except for *Selenosporella aristata* Kuthub. & Nawawi, which was described from submerged leaves (Kuthubutheen & Nawawi 1988). An interesting *Selenosporella* specimen recently found on decaying submerged leaves of *Calophyllum brasiliense* is described here as new.

Materials & methods

During several expeditions between November 2013 and May 2014 through Serra da Tromba in the semiarid region of northeastern Brazil, samples of submerged leaves

of *Calophyllum brasiliense* were stored in plastic bags, taken to the laboratory, and treated according to Castañeda-Ruiz (2005). Mounts were prepared in PVL (polyvinyl alcohol, lactic acid, and phenol) and measurements made at a magnification of ×1000. Microphotographs were obtained with an Olympus microscope (model BX51) with bright field and Nomarski interference optics. The holotype is deposited in the Herbarium of Universidade Estadual de Feira de Santana, Bahia, Brazil (HUEFS).

Taxonomy

Selenosporella minima Fiuza, Gusmão & R.F. Castañeda, **sp. nov.** Figs 1, 2

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Differs from *Selenosporella cymbiformis* by single, verticillate branched conidiophores.

Type: Brazil, Bahia, Piatã, Serra da Tromba, 13°05′S 41°50′W, on submerged leaves of *Calophyllum brasiliense* Cambess. (*Calophyllaceae*), 1-V-2014, coll. P.O. Fiuza (**Holotype**: HUEFS 210422).

Etymology: Latin, *minima*, meaning small, refers to conidial size.

Colonies on the natural substrate effuse, hairy, brown. Mycelium mostly immersed, composed of septate, branched, brown hyphae. Conidiophores distinct, single, erect, straight, verticillate branched, 2–5-septate, smooth, dark brown, 60–100 × 4–5 µm. Conidiogenous cells holoblastic, denticulate, sympodially elongated, discrete, brown to pale brown. Conidial secession schizolytic. Conidia solitary, navicular to acerose, unicellular, smooth, hyaline, 3.5–5 × 1 µm.

Note: *Selenosporella cymbiformis* B. Sutton is similar to *S. minima* in conidial shape and size, but *S. cymbiformis* has single or loosely synnematous, unbranched or irregularly branched, 35–55 × 3–4 µm, dark to medium brown conidiophores (Sutton 1973).

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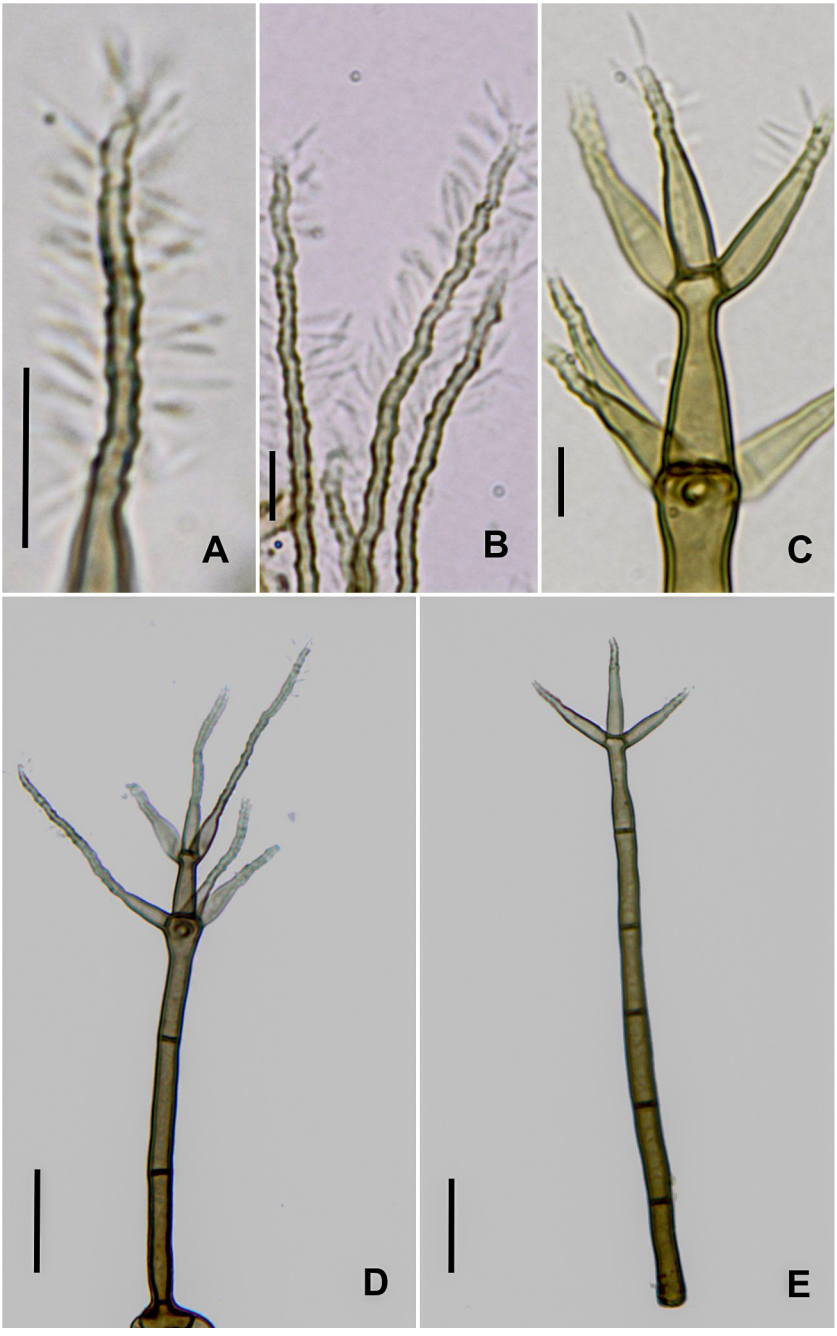
Fig. 1. *Selenosporella minima* (ex holotype, HUEFS 210422): A, B. Conidiogenous cells and conidia; C. Conidiophore, conidiogenous cells and conidia; D, E. Conidiophores. Scale bars: A = 10 µm; B, C = 5 µm; D, E= 20 µm.


A
B
C
D
E

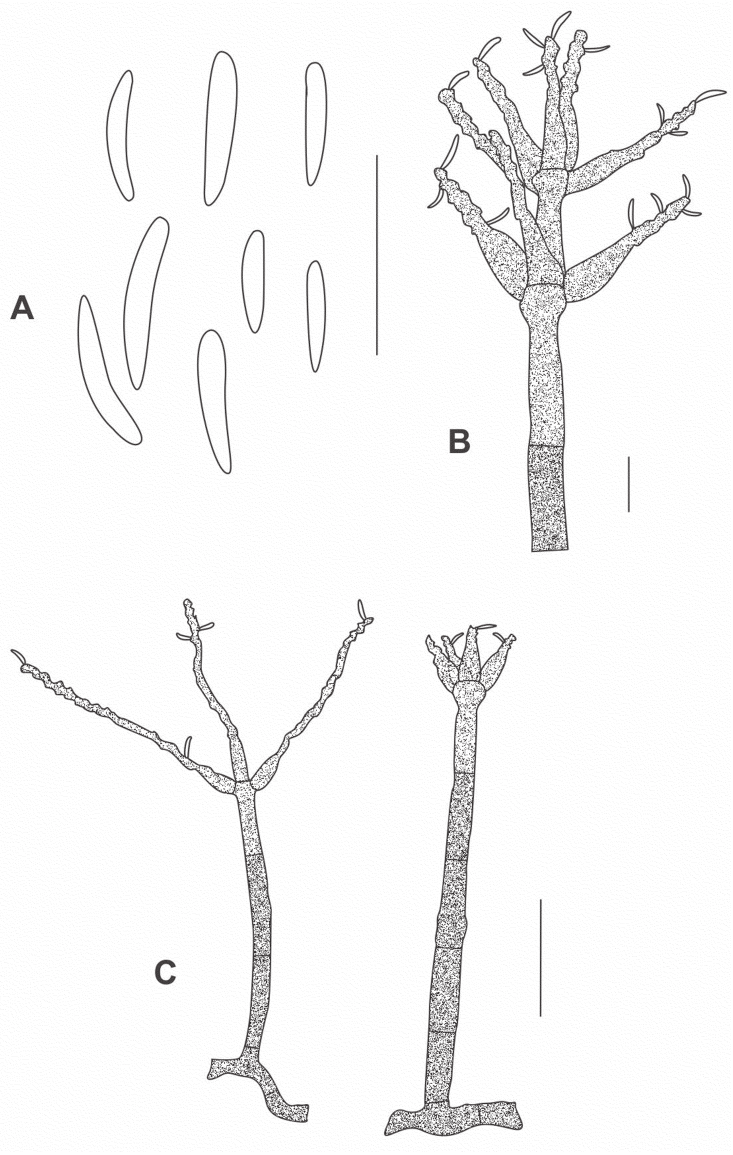


Fig 2. *Selenosporella minima* (ex holotype, HUEFS 210422):
A. Conidia; B. Conidiogenous cells and conidia; C. Conidiophores.
Scale bars: A, B = 5 µm; C = 20 µm.

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